

Your Canadian Search and Rescue Magazine

SAR SCENE

Special 2001 Edition

ISSUE FEATURES

**SARSCENE 2000
Overview**



**SARPAL - Remote
Control Rescue
Craft Reduces
Risks**



**413 Squadron
Wins Diamond
Trophy at
Sarex 2000**



**Office of Critical
Infrastructure Protec-
tion and Emergency
Preparedness**



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SARSCENE

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Letter From the Editor

After a year of reflection and restructuring, we are proud to provide you with a special 2001 edition of our SARSCENE magazine. We hope you will enjoy the varied articles on search and rescue that it contains.

In 2002, the magazine will resume its usual schedule and continue to take you more deeply into the world that makes up an important part of your lives. We would like to reaffirm that this magazine is for you. If you are interested in submitting an article to the magazine, please contact us. All the best from our NSS staff. —

Farewell from the Executive Director

After almost seven years as Executive Director of the National Search and Rescue Secretariat (NSS), I have decided to retire. But I take with me many happy and proud memories of the accomplishments that we in the NSS have achieved together. From the high profile events such as the annual SARSCENE workshop and the SARSCENE Challenge Games, both of which are now world-class events, to the less publicized but crucial Strategic Transition Initiative Project (STIP) which has the potential to change the way we conduct search and rescue in Canada, we have accomplished a great deal. We now have a meaningful Ground SAR program, and the New SAR Initiatives Fund (NIF) has been made available to all SAR providers, federal and non-federal. The list goes on. Indeed we have made a difference.

But as lengthy as the list of accomplishments may be, few if any would have been possible without the foresight, initiative and dedication of all NSS personalities. They were the initiators and the force behind our every success and I thank them all for their leadership.

NSS programs such as SARSCENE gave me an opportunity to associate with the broad fraternity of SAR specialists, full time and volunteer, all of whom are committed to saving others. Whether they be renowned SAR Techs of the Canadian Forces, SAR specialists from the Canadian Coast Guard or a volunteer searcher from a remote Inuit village, I was proud to be associated with them.

I particularly wish to acknowledge the SAR volunteers who dedicate their personal time to learning and perfecting SAR skills and, when called upon, are prepared to drop what they are doing to devote their full time to an actual SAR operation, sometimes putting their own life at risk to save another. All this they do primarily at their own expense, which speaks volumes about their commitment and dedication.

Thank you all for the wonderful experiences I have enjoyed and the many friends I have made during my time as Executive Director of the NSS. I go into the future confident in the knowledge that SAR in Canada, one of our most important and necessary humanitarian endeavours, is in good hands. —

R. William (Bill) Slaughter



GREAT RESULTS FROM SAR 2000

Because of Canada's vast size, volunteers from the Canadian Coast Guard Auxiliary (CCGA) rarely get the chance to see what others are doing in the various regions. With this in mind, the CCGA regional associations have taken part in competitions to test their members' marine search and rescue (SAR) skills and expertise, as well as to create unity within the organization. Skills tested were search planning, water rescue, first aid, water pump operations and radio communications.

Splash! Can't you just hear that sound when imagining an Auxiliary member jumping into the St. Lawrence River in an immersion suit? Well, that is what onlookers got to hear and see when they watched the mystery event at their SAR 2000 National Competition in Lachine, Quebec.

Now this might sound easy, but when you consider that the temperature was cool and the water was frigid, nobody wanted the short end of the stick. For many of the participants, it was their first time donning the full body immersion suit. So things got a little difficult when they were told to run/walk 30-40 m (100 ft.) – it was more like waddling – jump off the dock, swim across to the next dock and return, take the suit off and place it neatly back into the bag, and do it all as quickly as possible. This mystery event demonstrated technical know-how, speed and agility. This made Greg Miller, a likely candidate to lead the Pacific Region Unit of the Canadian Coast Guard Auxiliary (CCGA), winner for this event.



For some years, the CCGA regional associations have taken part in regional competitions testing their members' SAR skills and expertise. This year marks the first time the competition was held at a national level. But that's not all. To encourage the co-operation and exchange between the CCGA and the United States Coast Guard Auxiliary (USCGA), the USCGA entered six teams to compete in their very own National Competition, making this competition an international event.

Awards went to the winners of each event for both the U.S. and the Canadian auxiliaries. The National Championship award was given to the winning team of the overall competition for each country.

The International Champion was determined a little differently: before the competition, Everette Tucker, National Commodore, USCGA, and Harry Strong, Chief Executive Officer, CCGA, selected one event in the competition. The top U.S. and Canadian teams in that event were compared. This year the International Champion of SAR 2000 was Team Newfoundland.

Special thanks to CCGA – Laurentian for their hard work and contributions. The first National Competition was an overwhelming success. —

Kathy Needham, SAR Intern, CCG Headquarters



Fulfilling the Mission

According to the mission of the Canadian Coast Guard Search and Rescue program, one of its objectives is to support and involve the Canadian Coast Guard Auxiliary (CCGA). In Gander, Newfoundland, the Coast Guard Newfoundland Region did just that as they co-hosted the Newfoundland Regional Search and Rescue Competition for the CCGA.

Every year, the 5,000 volunteers that comprise the CCGA take part in over a quarter of all marine search and rescue missions across Canada. In Newfoundland alone, the CCGA responds to approximately 42% of marine distress calls each year.

The Newfoundland competition tested such skills as search planning, water rescue, first aid, water pump operations, radio communications, courtesy vessel examinations and line throwing. After each event, members of the Coast Guard debriefed the teams on their performance.

At the Regional Awards Banquet, Joe Price, Regional Director General of Fisheries and Oceans, Newfoundland Region, said: "Neil Peet (Canadian Coast Guard – Newfoundland) lives and breathes to keep the auxiliary happy." Mr. Price continued: "He must be doing a good job because I have seen the smiles on the faces of the Coast Guard Auxiliary members." —

*Kathy Needham,
SAR Intern, CCG Headquarters*



Teams participating in the SAR GAMES show their first aid skills.

SARSCENE GAMES

The fourth annual SARSCENE Games were the feature event for Day One of SARSCENE 2000. Held at the Parc de la nature in Laval, the games brought 11 teams from across Canada and the United States together to compete in various SAR events including the yearly mystery event, which simulated a collapsed structure extrication, underneath an outdoor pool. In first place was a mixed team with members from Parcs Canada, Quebec Region, and the Volunteer Group Sauvetage Canada Rescue (SCR). Gold medal winners for the last two years, Marathon Emergency Services, took second, and an all-volunteer team with members from the CCGA and SCR, placed third.

OVERVIEW – SARSCENE 2000

SARSCENE 2000 Workshop Un Pour Tous, All For One was held from 11-15 October 2000 in Laval, Quebec. A prime example of collaboration and co-operation, SARSCENE 2000 brought together search and rescue (SAR) providers from across Canada and the world, and from all areas of search and rescue, including air, maritime, ground and space.

In addition to featuring educational presentations, outdoor demonstrations and social events, for the first time SARSCENE coincided with the Cospas-Sarsat Seminar (an international satellite system for search and rescue). The workshop managed to surpass last year's attendance record, with 807 participants (including 69 presenters) from around the world, providing members of volunteer, provincial/territorial and federal SAR organizations with the opportunity to share their knowledge and experience.

Each year, the NSS partners with a regional volunteer group. This year's partner was the Volunteer Group Sauvetage Canada Rescue (SCR) with help from other members of the Quebec and Canadian SAR community.

The week had a tremendous introduction, as a series of pre-workshop training sessions and the annual meetings of several SAR organizations were held in the days before the opening of the workshop (9-10 October).

ORGANIZATIONAL ANNUAL MEETINGS

- The Canadian Coast Guard (CCG)
- The Canadian Coast Guard Auxiliary (CCGA)
- Parks Canada

PRE-WORKSHOP TRAINING SESSIONS

- Tracking, with Wayne Merry of Context North and Everett Savary of Halifax Regional Search and Rescue
- SAR Incident Management, with Rick Lavalla of ERI International, Richard Smith of ERI Canada, Dave Perkins of the UK Centre for Search Research and Chris Long, Washington State SAR Program Manager
- Night Searching, with Mike Doyle, Doug Doyle, Ken Snider and Mike McEwan of SARBC
- Disaster Dog, with Louis Coste, COSI, and François Rostelland, National Training Centre for K9 Search and Rescue Teams, Briançon, France

The afternoon featured a SAR management challenge, operated and organized by the U.S. Emergency Response Institute International (ERI). SAR Rescue 40 from Ohio won the event, which was based on ERI's six steps in managing a SAR incident.

Running alongside the games were the first ever K9 Games, with a total of eight handler and dog teams competing in various competitions, including an article search, "Laval Squares" (several large boxes, one of which contains a human) and navigation obedience. The big winner was Mario Lavigne of Sauvetage Canada Rescue des Laurentides and his two dogs Jazz, a German shepherd, and Sol, a Labrador retriever, which came in first and third, with Cliff Neumann of SCR and his dog Millie taking second place.

A mini-orienteeing course, displays and activities, featured with the games, made the event both enjoyable and challenging for participants and spectators alike.

The games awards were presented during the workshop Meet and Greet, giving competitors a chance to celebrate their victories and workshop participants an opportunity to catch up with old friends and acquaintances, while getting a preview of this year's trade show.

Another enjoyable social activity was the Volunteer Appreciation Night, proving that SARSCENE is more than an exchange of search and rescue ideas and education.

WORKSHOP OPENING

Thursday, 12 October, began with the workshop opening ceremonies and a theme presentation on Cospas-Sarsat. Traditional bagpipes and drums led a procession with flags from all the countries, provinces and territories represented at the workshop. The Eastern Door Dancers performed a traditional Mohawk dance, with an elder leading the attendees in prayer. Many important dignitaries gave welcoming remarks, including Madame Lise Thibault, Lieutenant Governor of Quebec.

The theme presentation, "The Cospas-Sarsat Satellite System: Lifeline to Survival", summarized the organization's mandate and functions. Following the presentation, all workshop participants were treated to a complimentary lunch hosted by the trade show exhibitors, before heading to the afternoon presentations.

POPULAR WORKSHOP PRESENTATIONS

- Jim Stanton, Jim Stanton and Associates with Media and Crises: Feed the Beast; and
- Rick Goodman, New Mexico State Police with Snapshot: The Future of SAR.

TRADESHOW AND DEMONSTRATIONS

In addition to educational presentations, SARSCENE 2000 was home to various displays and demonstrations on and off site. Along with the games and exhibits in the trade show, there was a rappelling demonstration down the side of the Sheraton by the École nationale d'escalade du Québec and the Ottawa Fire Department Rescue Team. At the same time, a hovercraft demonstration, onshore rappelling, a helicopter rescue and an amphibious aircraft were just a few of the demonstrations incorporated into the St. Lawrence River SAR Demo Cruise.

Natives participate in the workshop opening ceremonies in Laval Quebec.



This year's trade show was the largest yet with a record 58 companies in attendance. Many exhibitors donated goods to the Silent Auction, with approximately 108 items auctioned off to raise about \$3500 to support the members of the Quebec SAR community.

AWARDS BANQUET

The 2000 Outstanding SAR Achievement Awards Banquet honoured Phillip E. Jennex, President of the Civil Air Search and Rescue Association (CASARA), Nova Scotia, and Program Co-ordinator with the Canadian Coast Guard College. Phillip Jennex's work with SAR in Canada crosses jurisdictions and spans the various levels, from instructing and participating in emergency situations, to acting to improve the preventive methods currently established.

Certificates of Achievement were awarded to:

- Jean Maillette, Superintendent, SAR Training, and Senior SAR Manager, Canadian Coast Guard College, Sydney, Nova Scotia;

- Wayne Merry, Context North, Atlin, British Columbia;
- Greg Ursel, CASARA, Deputy Zone Commander for Calgary, Alberta;
- Moose Factory Search and Rescue (MFSAR), Moose Factory, Ontario; and
- Scott Brickwood and Bonnie Hood, Peace Regional Search and Rescue (PR SAR), Alberta.

The Awards Banquet and SARSCENE 2000 came to a close when Bill Slaughter, Executive Director of the NSS, passed the flag to Debbie Brewster of Whitehorse District SAR, which will partner with the Yukon Emergency Measures Organization and the NSS to host SARSCENE 2001 in Whitehorse, Yukon. ■

Janna Meneghello,
Co-op Student, Simon Fraser University

K-9 Games



Rappelling demonstration.



SARPAL

Remote Control Rescue Craft Reduces Risk



On 24 May, 2000, onlookers at the Nepean Sailing Club got the chance to see a new search and rescue tool at work. The Search and Rescue Portable Air Launchable (SARPAL) was released on Lac Deschênes to demonstrate its capabilities and allow viewers to test-drive the innovative marine way-station.

Developed for the Department of National Defence (DND), with joint funding from the National Search and Rescue Secretariat's (NSS) New SAR Initiatives Fund (NIF) and International Submarine Engineering (ISE), the SARPAL is a remote-controlled marine vehicle (MV) that can be launched from a CC130 Hercules aircraft, a helicopter or a small crane. The SARPAL exemplifies what high-powered technology combined with imagination can produce for search and rescue.

The SARPAL was created for a specific SAR scenario. Even after search teams have located marine accident victims, stormy weather can slow recovery. A victim struggling for breath and warding off panic in near-zero water temperatures lacks the luxury of time.

Victims of water accidents often need to shelter in sturdy marine way-stations until they can be rescued. However, when light, non-powered rafts are dropped into rough water, they are often blown away from the struggling victim, who may be forced to expend precious energy reserves in what can be futile efforts to reach a life raft. Consequently, SAR Techs are often forced to enter dangerously rough and cold water in an effort to reach a victim – a courageous action but one that puts more lives at risk.

The SARPAL provides a solution. What sets it above contemporary life rafts are its self-propulsion and remote control capabilities. Once victims have

been located by the SAR Techs, the SARPAL is launched from the back of the Hercules aircraft. As the marine vehicle falls, the main tube inflates; as soon as the MV hits the water, the parachute is released and the weather hood inflates. Once the MV is in the water, SAR Techs can control it with a joystick attached to a laptop, or they can set way points which, using a global positioning system (GPS), enable the SARPAL to travel entirely on its own.

Because the SARPAL can be remotely controlled, SAR Techs can steer it toward victims in the water. Cameras posted fore and aft of the MV allow navigators to see where victims are, and an internal camera monitors their condition once they have boarded.

Boarding a rescue craft is a major barrier for hypothermia victims with limited limb capabilities. However, ISE is developing an automated platform that can be attached to the rear and will assist the victim with boarding. As well, the low

centre of gravity in the SARPAL and its navigational capabilities make it a remarkably stable, small craft that can overcome heavy seas while still making headway.

Two prototype marine vehicles have been built. One MV (the M-2A) was fitted with a water-filled fuel tank, dummy engine, propeller and shaft for air-drop test and evaluation. In preliminary tests, the M-2A was dropped successfully into water from heights up to about 5 m (16 ft.), simulating an entry velocity of almost 10 m (32 ft.)/s. The qualification air-drop tests of the MV from a Hercules were performed successfully prior to year end. Work on the project is ongoing.

The second MV (the M-2B) was fitted with a propulsion system, GPS navigation system and electronics for evaluation of its controllability and seaworthiness. The M-2B successfully completed sea trials in waters up to sea state 5 while controlled from a Cessna aircraft.

Besides its use as a search and rescue tool for DND, ISE is exploring other commercial interests for similar vehicles. The SARPAL can be used on cruise ships, where it would be lifted into the water by the small cranes usually used for lifesaving boats. There are possible military applications, as well as uses in an environmental crisis. One example of this would be on oil tankers where it could be used in search and rescue, or for containing oil spills by dragging an inflatable containment boom behind it and navigated remotely to enclose the spill. Even though the SARPAL is not yet ready for production, the U.S. Coast Guard, the U.S. Navy and other nations have already shown interest.

SARPAL's functionality within the area of search and rescue should lessen the often-arduous task of marine rescue. DND and ISE completed a functional prototype in 2001.

For more information on SARPAL contact the project manager, Lori Porter at lporter@ise.bc.ca or visit ISE's Web site at: www.ise.bc.ca. —

*Janna Meneghella,
Co-op Student, Simon Fraser University*



Underwater Dive Rescue – Yellowknife, NWT

New SAR Initiatives Fund 2001-2002

NIFID	PROPOSAL TITLE
2001052	Review Studies
2001007	Purchase of Portable and Compatible Radios: Campbell River SAR, BC
2001008	Provision of Marine Radio Safety Services, Inuktitut
2001022	SAR Training Material Development, NU
2001045	Canadian Beacon Registry Enhancement
2001012	EPIRBs for Inshore Rescue Boats
2001034	Quebec Collaborative Avalanche Project (QCAP)
2001001	Equipment Training: Chatham-Kent, ON
2001037	Variability in Strong Winds along the West Coast, Vancouver Island
2001026	Aircraft Icing Model Update – Phase II
2001040	"SAR and the 406 MHz ELT" video
2001024	Fuel Tank Installation – Cape Race, NF
2001029	Double Horse Collar for CH124
2001018	Testing/monitoring of VHF marine distress system, Pilot project, YK
2001039	Seascope System of Evacuation
2001021	Electronic Navigation: GPS, NU
2001023	Internet Based Dispatching/Recording/Training Emerg. Mgt. System, NU
2001005	Communication/Educational Upgrade: Comox Valley GSAR Assn., BC
2001031	Advisor Tool for Estimating the Overland Location of Missing Aircraft
2001006	Automatic Positioning Reporting System (APRS): Central BC
2001003	Training Auxiliary Members – Toronto, ON Police
2001049	SAR Program Needs Analysis, SK
2001036	Internet Dissemination of Meteorological Information, Great Lakes
2001048	Engineering Development of Low-Cost General Aviation 406 MHz ELT
2001027	Canadian Precision Aerial Delivery System (CPADS)
2001016	SAR Prevention and Training Material, Labrador Coast
2001044	High Resolution Near Shore Wind Forecasts, Great Lakes
2001013	Establishment of CCGA Arctic
2001025	Active Imager for Underwater SAR ops
2001035	Prevention/Response Prog. for Sea Kayak Incidents-Mingan Archipelago NPR
2001009	Eau Sec/ Splash Guard
2001004	SARCOP: Civilian and Police SAR Program
2001047	Yukon SAR Dog Handler Qualifications Development, YK
2001051	Dive SAR Surface Supply Diving – Equipment and Training
2001017	Prévention de la sécurité nautique en milieu inuit/ Water Safety Prevention – Inuit
2001010	SAR Response to a Tsunami: Pacific Region
2001046	Yukon GSAR Certification Program Enhancement, YK
2001028	Countermeasures to Airsickness for Cabin Aircrew (SAR Techs/Navigators)
2001011	Water Incident Research Alliance – Providing death and injury information
2001041	406 MHz Emergency Beacon Decoder
2001030	RADARSAT-2 for SAR
2001042	GPS Chipset Integration
2001050	Visual Identification and Equipment Standardization (SARSAV), SK
2001032	Rapid Mount Airborne Sensor System

413 Squadron wins Diamond Trophy at SAREX

14 WING GREENWOOD – For the first time in 15 years, Americans participated in the annual Canadian Search and Rescue Exercise, held in Greenwood, N.S., 15-20 September, 2000. Hosted by 413 Squadron, this year's SAREX was marked by the absence of three western search and rescue (SAR) squadrons that were involved in a major search for a lost aircraft in the Rocky Mountains.



“We were disappointed by their absence due to the search in the West,” said LCol Mike Dorey, 413 Squadron Commander. This narrowed the field of participants to 424 Squadron from 8 Wing Trenton, 103 SAR Squadron of 5 Wing Gander, the host 413 Squadron and a composite team drawn from 444 Combat Support Squadron of 5 Wing Goose Bay and 439° ESC of 3 Wing Bagotville.

The American participants came from the 720th Special Tactics Group (the 23rd Special Tactics Squadron from Hurlbert Field in Florida and the 24th Special Tactics Squadron from Pope AFB) and from the Alaskan Air National Guard

(the 210th Rescue Unit). The American teams competed under the same rules, but faced off against each other.

“The Americans and Canadians compete separately because our mandate is different, but it’s an excellent opportunity for SAR Techs to compare medical protocol and equipment,” LCol Dorey said.

The top overall team, and winner of the Diamond Trophy, was 413 Squadron. In addition to capturing the Maintenance Trophy, the team finished a strong second or third in the other events and had the fewest penalty points in the combined standings.

103 SAR Squadron from Gander also had a very successful SAREX. In addition to being the top team in the rescue event, it also won the coveted medical event in a closely contested battle with

413 Squadron and was the unanimous choice of the judges for best team spirit.

The top U.S. team in all categories was the 24th Special Tactics Squadron.

The Canadian teams competed in five events, among them parachute accuracy, a search event and a mass casualty simulation.

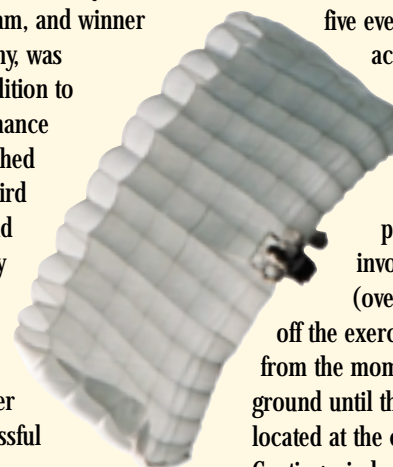
The traditional “bell-ringer”, a fun but highly competitive parachuting accuracy event involving the most experienced (over 40 years of age), kicked

off the exercise. Jumpers were timed from the moment they touched the ground until they could ring a small bell located at the centre of the landing area. Gusting winds provided a variety of results. CWO Arnie Macauley, Senior SAR Tech at 1 CAD, recorded the fastest time.

Much to the chagrin of the major SAR squadrons, the composite team from the combat support squadrons, who jump very infrequently throughout the year, dominated the parachuting accuracy event. The top individual jumper was Sgt Dale Robillard from 444 Squadron in Goose Bay, whose average miss distance over five jumps was less than half a metre.

SAREX is an opportunity for SAR specialists across the country to gather and exchange information and ideas. —

Maj Ken Groen is the Deputy Commanding Officer of 413 Squadron



Brewer Receives SAR Volunteer Award

After four decades of volunteering in search and rescue (SAR), North Vancouver resident, Dave Brewer has been awarded the SAR volunteer of the year award by British Columbia's Provincial Emergency Program.

Attorney General Andrew Petter presented the award to Mr. Brewer at ceremonies signifying the kickoff to the Emergency Program's Emergency Preparedness Week, which ran from 1-7 May.

"Volunteers are ready seven days a week, 24 hours a day, and they're prepared for all kinds of weather and all kinds of situations," stated Petter. "It is a privilege to honour emergency volunteers and co-ordinators who have such a commitment to helping others in need and making B.C. a safer and better place to live."

One of six volunteers honoured at the banquet, Mr. Brewer was the sole recipient for efforts in SAR. He is a member of the North Shore Search

and Rescue Team, and has played a vital part in developing that organization in his 40 years of SAR service.

The team, which numbers over 45 members and responds to more than 60 calls each year, was not always so strong. On his first rescue, the team carried equipment up Goat Mountain, and on reaching the summit, ended up waist high in snow. Dave realized that the team was in need of some mountain rescue training. Since then, he has been key to improving the North Shore SAR Team, as well as bringing support to other teams and volunteers around the province.

Although Mr. Brewer was the recipient of the award, his SAR efforts go beyond it. The organization is a direct reflection of his lifelong commitment to SAR in British Columbia. —

*Janna Meneghello,
Co-op Student, Simon Fraser University*

May 1st

New Deadline – Outstanding SAR Achievement Awards Program

The Annual NSS Awards Program was introduced in 1995 to acknowledge outstanding work by SAR volunteers, professionals and organizations and to raise awareness of search and rescue efforts across the country.

The Outstanding SAR Achievement Award recognizes the most exceptional contribution to SAR in Canada by an individual or organization. The Certificates of Achievement recognize individuals or groups who have made significant contributions to SAR efforts.

Award recipients are chosen for their courage, determination and extraordinary contributions to SAR. If someone you know has made an outstanding contribution to SAR, you can nominate him or her for the Award or the Certificate.

Deadline for nominations is May 1, 2002. —

*For a complete information package please contact:
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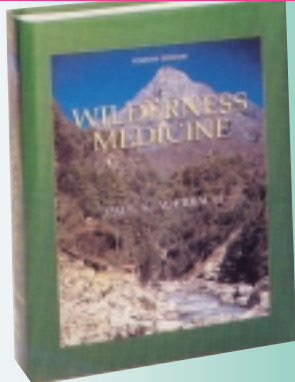
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Basic Mountain Safety From A to Z by J. Leslie Johnson

Whether you are an active climber or a beginner just starting your outdoor adventures, *Basic Mountain Safety From A to Z* is an extremely useful addition to your backpack.

J. Leslie Johnson has combined her experience with her 20-year love of the mountains to create a mountain safety handbook with an encyclopedia-styled reference section.

It is the latest addition to the *Altitude Superguide* series.

Johnson uses the basic premise that knowledge is the mountaineer's best defence against dangerous incidents and hazards. She teaches the adventure enthusiast to "see the hazard, avoid the hazard, prevent the accident" (p. 5). The handbook accomplishes its goal of being a readable handbook for either novice or specialist, by combining a basic pre-adventure checklist, then identifying possible hazards. Johnson uses interviews, photos and full-colour diagrams to make the handbook easy to understand.

Beginning with a set of basic steps, supplied by Canadian Mountain Specialist Lloyd "Kiwi" Gallagher, the book lays a foundation for any climbing attempt regardless of size. Whether it is the basic gear checklist or the techniques of route finding, Johnson prepares readers to prevent accidents from occurring. While the basic preparation sections in other safety handbooks consist of multiple chapters, Johnson's section is comprehensive but brief. Gallagher proves the value of the basic steps, as he uses them before every expedition.

The remainder of the book is an encyclopedia index and includes a diverse list of topics, ranging from animals that you might encounter to the implications of water hazards. Johnson wastes no time, as she examines the heart of the topic. Although this section is meant to be read before an expedition, the table of contents and

index allow climbers to use the book as a quick reference during hikes and climbs.

The page design is in a magazine style and makes the encyclopedia format surprisingly easy to follow. Readers are guided from topic to topic. While looking up a specific topic, readers can glance at the sidebars for quotes from authors like Mark Twain, or diagrams of mountain lion tracks. Johnson shows the extent of her research in the specialist interview format. It is informative and diverse, and the topics range from whether bear attacks are on the rise to Dixon Thompson's "Scoop on Poop".

Even though it is full of knowledge, people should not assume that this book covers every possible hazard on every climb. The basic checklist includes steps for the mountaineer to take before each excursion. The book is not only meant as a guide to prevent mountain accidents from happening, but also to provide climbers with knowledge if an accident does occur.

J. Leslie Johnson's *Basic Mountain Safety From A to Z* can be used as a basic introduction for anyone new to mountaineering and its diversity and small size make it a tool easily carried in any backpack. —

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Janna Meneghello, Co-op student
Simon Fraser University



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Volunteer Licence Plates for Ground Search and Rescue

Thanks to a program launched late last year, more than 400 ground search and rescue volunteers in Nova Scotia are sporting a new licence plate on their vehicles.

The program, which also applies to volunteer firefighters, waives vehicle registration fees and provides for the special plate. It was initiated to recognize the efforts of Nova Scotians who voluntarily put themselves at risk to help their friends and neighbours, and even people they have never met.

"The distinctive plates are a symbol of our appreciation for the job GSAR volunteers do," said Mike Lester, director of Nova Scotia's Emergency Measures Organization. "The new plates will make it clear that these people are emergency workers and ensure their access to restricted areas during emergencies."

To be eligible, an applicant must be an active GSAR volunteer for a minimum of 12 months and participate in at least 20 percent of the team's training activities. Application forms are available through search directors, Registry of Motor Vehicles offices and Access Nova Scotia centres. Volunteers can apply for the program on expiration of their current vehicle registration.

"These special licence plates provide recognition to an important group of volunteer professionals which operates largely out of the public eye," said Charlie Strickland, president of the Nova Scotia Ground Search and Rescue Association. "Most searches are conducted at night and in poor weather conditions. On behalf of all ground search and rescue teams, I would like to thank EMO and the province for making this program available."

The 25 ground search and rescue teams in the province conduct an average of 60 to 70 searches per year. —

Louise MacDonald, EMO (NS)

Building Prevention Information Capacity

Search and rescue always generates talk of new equipment and tactics and the money needed to use them. But what about investing in SAR prevention? Statistics and experience tell us that, as with other emergency situations, many SAR incidents could be prevented if people were more educated in making "smarter" decisions.

In 1997 the National Search and Rescue Secretariat (NSS) completed a review of federal non-regulatory SAR prevention activities. Directed by the Interdepartmental Committee on SAR (ICSAR), the review uncovered a number of problems. First there was no information base to inform SAR agencies and management on the impact of prevention activities. Second, the review found duplication in prevention programs among agencies, which could be corrected by improved communications and information sharing.

One positive result of the review was the formation of the Interdepartmental SAR Prevention Working Group. It consists of permanent representatives from Parks Canada, the RCMP, Canadian Coast Guard – Office of Boating Safety, Transport Canada and Environment Canada, and has branched out to invite participants from Health Canada and the Canadian Red Cross. The first hurdle was to develop a suitable vision, objective and enabling strategies for future federal SAR prevention programs and activities, which was completed by ICSAR in 1998.

In keeping with these strategies, the Prevention Working Group initiated a project in 2000 through the New SAR Initiatives Fund, Building Prevention Information Capacity (BPIC). Its objective was to analyze data and information resources including raw incident data to monitor trends, causal factors, rates and circumstances.

There are two mandates of search and rescue: response and prevention. The Prevention Working Group believed that if causality and prevention information could be collected, organized and analyzed in an efficient manner, prevention programs could tap into this information to educate the public and

thus stop incidents and dangerous situations that might require rescue before they happen. The BPIC program was the first phase of an ongoing long-term SAR prevention strategy.

A meeting was held 22-23 March 2001, in Ottawa, to initiate information sharing and capacity building among the various prevention practitioners. In attendance were the federal SAR departments, provincial EMOs with SAR prevention jurisdiction, Royal Newfoundland Constabulary, Sûreté du Québec and the RCMP. There were also academics and representatives from Health Canada, the Canadian Red Cross Society, Water Incident Research Alliance (WIRA), the Cook-Rees Memorial Foundation, the Lifesaving Society and the Canadian Safe Boating Council.

The prevention workshop had four objectives: to raise awareness of federal SAR prevention strategies, to raise awareness of provincial/territorial and non-governmental organization (NGO) SAR prevention activities, to discuss lessons learned and best practices on causality, surveillance and the national prevention strategy, and to determine an action plan for causality data and surveillance for all the SAR partner agencies.

All these objectives were accomplished and all the participants agreed that the best practices and lessons learned should be shared at a national level to help all jurisdictions develop and strengthen their prevention activities and programs. It allowed the attendees to meet and talk, face-to-face with their peers, about programs and activities they run.

This was the first meeting of its kind in Canada to deal specifically with SAR prevention. —

Mark McGaraghty, NSS and Jon Elliott, Co-op student, Mount Saint Vincent University

STRATEGIC TRANSITION INITIATIVE PROJECT

In an ideal world, no one would take unnecessary risks and the weather would be predictable. Unfortunately every day, people find themselves in need of emergency response.

There are many challenges to Canada's current SAR system including the huge area of responsibility (approximately 13 million square kilometres), budget cuts, equipment problems and the increasing popularity of "extreme" wilderness activities. The aim of Canada's National Search and Rescue Program is to meet these difficult challenges while improving both the response to, and prevention of SAR incidents.

In 1999, under the direction of the Interdepartmental Committee on SAR (ICSAR), the National Search and Rescue Secretariat completed a review of federal response services provided by the Canadian Coast Guard, the Department of National Defence (DND), Parks Canada and the RCMP.

The review addressed program issues such as strategic management, performance measurement and program management structures as well as operational issues such as human resources, equipment, training, the Major Air Disaster Response Plan (MAJAID) and federal standby positions.

The most significant finding was that an overall federal policy or plan with priorities, effective management structure and a clear statement of expectations for federal SAR services was non-existent.

The review team concluded that without a suitable policy or plan in place,

federal SAR response services were likely to worsen over time.

As a result of these findings, the Strategic Transition Initiative Project (STIP) was developed and approved by ICSAR. The resources for the two-and-a-half year project are provided through the New SAR Initiatives Fund, ICSAR members and the NSS. The main objective was to design an approved strategic SAR framework to rejuvenate the federal SAR system.

There are seven issues addressed by STIP that will help build this new SAR system: policy, plan, management structures (i.e., NSS, ICSAR), training, equipment interoperability, MAJAID and SAR readiness.

In the end, STIP will produce an overall policy framework, program plans, and delivery mechanisms for a flawless SAR system in Canada.

Recognizing the multi-jurisdictional nature of federal SAR services, a team of individuals from DND, Coast Guard and the NSS has been created to lead the project activities. This group has SAR experience and policy research expertise, as well as administration and management skills. Well-known individuals from within the SAR community and public service have also been asked to provide advice on the seven issues and the overall progress of the project. Consultation with non-federal

SAR authorities will be required throughout the project, especially with regard to a draft SAR plan, MAJAID and the overall policy framework.

Over the next few years, much work will be done to strengthen our national SAR systems and to promote service excellence. The success of STIP hinges on three factors: the transparency with which activities are conducted, meaningful consultation with non-federal partners and a solid research foundation to verify findings and recommendations that will emerge.

The next few years of this project will determine whether Canada will have a stable framework for SAR. Ultimately, lives depend on STIP's outcome. —

*Jon Elliott, Co-op student
Mount Saint Vincent University*



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An Interview with Margaret Purdy, New Head of the Office of Critical Infrastructure Protection and Emergency Preparedness



Margaret Purdy, Head of the OCIEP

In February, Prime Minister Jean Chrétien announced the creation of the new Office of Critical Infrastructure Protection and Emergency Preparedness and the appointment of Margaret Purdy as Associate Deputy Minister of National Defence, whose responsibilities would include OCIEP.

Ms. Purdy has extensive knowledge of and experience in the fields of security and intelligence. She has held progressively senior positions with the Royal Canadian Mounted Police, the Canadian Security Intelligence Service and the Department of the Solicitor General. She joined the Privy Council Office in October 1995 as Assistant Secretary to the Cabinet, Security and Intelligence, and was appointed Deputy Secretary to the Cabinet (Security and Intelligence) in November 1998.

Emergency Preparedness Digest: With the creation of the OCIEP, do you see the traditional role of emergency preparedness changing?

Margaret Purdy: I think the creation of this new entity provides a huge potential for emergency preparedness to gain an even higher profile in Canada. As well, I believe the OCIEP will be able to provide national leadership on a wider range of programs, reflecting the changing nature of the country's critical infrastructure. All the key sectors – energy and utilities, communications, transportation, safety, services and government – are increasingly reliant on information technology. They are also highly interdependent. This evolution does not diminish the importance of preparing for and managing natural disasters and serious accidents which may have the greatest impact on the physical

infrastructure. But today no infrastructure protection plan can be considered adequate unless it addresses the "cyber" dimension. Of course there will be some administrative changes within the OCIEP as we merge the two elements of critical infrastructure protection (CIP) and emergency preparedness. For example, we see merger potential in such areas as training, communication and, of course, corporate services. But our mandate and mission remain the same: saving lives, protecting property, preparing for and dealing with disasters.

EPD: What are the implications for relationships with the provinces and territories as a consequence of the OCIEP's creation?

MP: The relationships we have with the provinces and territories in emergency preparedness are already well established, and I have made clear my intention that this should be disrupted as little as possible. These partnerships are absolutely essential to meeting the needs and expectations of Canadians. The challenge will be in identifying our natural partners in the new area of CIP. In some cases, we will be dealing with the same provincial or territorial officials as before. We may also need to establish new connections with Chief Information Officers, public safety officials and others. At the federal level, we will work with our colleagues in the Treasury Board Secretariat, the Solicitor General, Industry Canada and elsewhere as we build national partnerships.

EPD: How does the establishment of the OCIEP compare with what is happening in other countries?

MP: Most developed nations are now addressing the "cyber" dimension of CIP

by putting in place programs to deal with prevention, detection and response. However, according to our research, Canada is the first country to have combined the two aspects of CIP and traditional emergency and disaster preparedness under one organization. In this sense, we are serving as a model, and many other countries will be watching us.

International partnerships will be of significance to the OCIEP. Canada's critical infrastructure is increasingly linked to global infrastructures. Likewise, cyber-based threats to our infrastructure can emanate from anywhere in the world. In this environment, we need excellent international partnerships. Again, we can learn much from existing emergency preparedness links among nations.

EPD: The OCIEP will need to identify and manage risks to Canada's critical infrastructure. How will you be addressing this challenge?

MP: First of all, we will be building on the strong foundation of expertise in this area that already exists within the emergency preparedness component of the organization. In addition, with respect to CIP, many new contacts and networks were established for the Y2K rollover, and these have been maintained. We estimate that up to 90 percent of Canada's critical infrastructure is owned and managed by the private sector or other levels of government. We now need to use and expand all our partnerships to deal with new vulnerabilities and threats by sharing information and best practices. Strong partnerships within Canada, and internationally,

will be essential to providing an appropriate level of assurance to Canadians.

EPD: Can you tell us the lessons your organization learned from the Y2K experience and how it changed the way the OCIEPEP plans for other types of emergencies?

MP: I think the organization learned the importance of contingency planning and operational readiness. It worked on enhancing monitoring and reporting, risk assessment and business resumption planning. This approach allowed us to take mitigative action to reduce the risk and potential impact, and we continue to apply this on a daily basis, honing our skills and developing new tools, such as new methods for communication and connectivity.

As well, Y2K taught us how crucial it is to have strong co-ordinating and decision-making mechanisms at the most senior levels of management. For example, the work done by the National Contingency Planning Group (NCPG) within DND was instrumental in assessing Canada's state of readiness for Y2K. It will also go a long way towards helping the OCIEPEP fulfill its mandate. The NCPG produced infrastructure risk assessments that the OCIEPEP can apply to other situations, and tools such as the NCPG database have been maintained.

The NCPG's work on risk assessment also included studies that established and ranked Canada's critical infrastructure into an interdependency matrix. This represents an important model enabling emergency planners to assess infrastructure provincially, regionally and by municipality.

Finally, as I mentioned earlier, we had excellent relations with the provinces and territories, and we forged new partnerships during the Y2K period with the private sector and internationally. These will serve the OCIEPEP well as we take on our expanded mandate. ■

Ruth Cardinal is a Senior Consultant with Brad Mann Communications Consulting Inc., based in Ottawa, Ontario.

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*Emergency Preparedness Canada website:
<http://www.epc-pcc.gc.ca>*

Research and Development at the OCIEPEP

Nobody is more familiar with the intricacies of disaster research and development (R&D) than Dr. Chris Tucker, the OCIEPEP's Director, Research and Development (DRD). Dr. Tucker and his staff have a broad responsibility to advance preparedness through research activities; they are responsible for compiling historical databases of disasters, they design natural hazard maps and disaster models, conduct risk evaluations and analyze the toll that emergencies of all types take on our economy. But the Directorate is small; all too often, demand for services outweighs capacity.

“In the past few years, there have been several large-scale natural disasters that have got the country's attention namely, the 1996 Saguenay floods, the 1997 Red River floods and the 1998 ice storm,” Dr. Tucker explains. “This has raised awareness of the risks posed by natural hazards, which in turn has increased demand for research on natural hazards. We by ourselves do not have the staff necessary to meet that demand, so we operate a multidisciplinary research program that we carry out with other government departments, universities, the private sector or wherever else we can find a relevant partner. In this way, we are able to take on and complete projects that might otherwise have been impossible.”

One of the joint projects Dr. Tucker is most proud of is a full-colour map of natural hazards in North America that DRD helped produce in 1998, in conjunction

with researchers in Mexico, the United States and Canada. The prototype map was presented to the National Geographic Society, which offered to publish it within the year. Some 20 million copies of the map, in six languages, were ultimately circulated. The map shows causes and effects across the continent for a variety of natural disasters, including hurricanes, tornadoes, drought and hail.

“This project was quite a challenge in terms of collecting and verifying data,” Dr. Tucker says. “When you cross the border from Canada to the USA, or from the USA to Mexico, reporting mechanisms and standards change. Because of this, our ability to understand phenomena with international implications, or even to record them accurately, is somewhat suspect. But the map is a great educational tool for schools and for the general

Continued on the following page



Dr. Tucker and staff are responsible for compiling historical databases of disasters. They design natural hazard maps and disaster models, conduct risk evaluations and analyze the toll that emergencies take on the Canadian economy.

Continued from the previous page

public; it gives them a good general picture of what can go on in various areas.”

Dr. Tucker cites several other successful, ongoing partnerships. For example, DRD has developed a computerized tornado and flood damage model with the help of Environment Canada, and the earthquake and land-slide model with input from the Geological Survey of Canada (GSC).

“We focus our R&D efforts on basically three tiers,” he explains. “The top tier is information for public consumption, such as the natural hazards map. The middle tier is concerned with creating risk-assessment tools and models, which is where we focus most of our efforts.” These include the various components of the National Hazards Electronic Map and Assessment Tools Information System (NHEMATIS), a prototype system comprising an electronic national hazards map and a series of risk-assessment and search and query tools.

“The major questions for emergency planners are: ‘Where are the people at risk?’ and ‘How do we deal with it – what can we do to lessen the risk?’ More and more of our models are grappling with these questions, and a lot of our research looks more toward the long term than providing a quick answer.”

The third tier of the R&D effort is the most fundamental one – the building of the databases and information, both qualitative and quantitative, that will serve as the starting

point for models and more general products such as maps, guidelines, and reports.

“Fortunately, fundamental data relevant to emergency preparedness is not as hard to obtain as it used to be,” Dr. Tucker notes. “We get a lot of help from other federal agencies such as those already mentioned, along with Public Works and Government



Chris Tucker

Services Canada, the National Research Council and Statistics Canada. Also, larger municipalities, provincial entities, universities and the private sector are becoming stronger partners.”

OSSA’s plans for the near future include putting some aspects of its hazard model, NHEMATIS, on the OCIEPEP Web site. “We already have a natural disaster database that people can download. We’ve just revised it, and now the costs of all the disasters dating back to 1900 are listed in constant 1999 dollars.”

Dr. Tucker’s job is not for the faint of heart: his Ottawa office is plastered with posters detailing the myriad ways a person can perish around the world: floods, earthquakes, tornadoes – according to these maps, the safest place on the planet seems to be Greenland.

“Actually, I don’t stay awake at night worrying about the sky falling in,” he laughs. “I’m more concerned with finding and engaging enthusiastic people to do all the pressing work that needs to be done. There is a career and a half here.”

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Upcoming Events

If you have any events to list in the upcoming issue of SARSCENE magazine, please contact Diane Miller,

Phone 1-800-727-9414, (613) 996-3035

E-mail: dmiller@nss.gc.ca, Fax: (613) 996-3746



NASAR RESPONSE CONFERENCE – SAR 2002

The annual NASAR Response conference will be held in Charlotte, NC from May 30-June 2, 2002. Details are still being finalized, but keep an eye on the NASAR Web site for the latest details.
www.nasar.org



SARSCENE 2002 WORKSHOP

The 11th Annual Canadian SAR Workshop will be held 11-14 September 2002 in Halifax, Nova Scotia

For more information about the workshop please consult our website at: www.nss.gc.ca

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